



STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM
1101 RIVERSIDE DRIVE, P.O. BOX 176
JEFFERSON CITY, MISSOURI 65102-0176

EMISSIONS INVENTORY QUESTIONNAIRE (EIQ)

FORM 2.6 ORGANIC LIQUID STORAGE - FLOATING ROOF TANK

FACILITY NAME	FIPS COUNTY NO.	PLANT NO.	YEAR OF DATA
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Please provide all the following information if this form is being used to derive emission factors for liquid storage tanks with capacities greater than 250 gallons. Please include all organic liquids and petroleum products or fuels.

[1] TANK INFORMATION

POINT NO.		TANK ID. NO.		SOURCE CLASSIFICATION CODE (SCC)		SEG. NO.
				BREATHING		
				WORKING		
CAPACITY (IN THOUSANDS OF GALLONS)		TYPE OF CONSTRUCTION		PRIMARY SEAL		
		<input type="checkbox"/> RIVETED <input type="checkbox"/> WELDED		<input type="checkbox"/> LIQUID MOUNTED		
DIAMETER (FT)	HEIGHT(FT)	TYPE OF ROOF		<input type="checkbox"/> METALLIC SHOE <input type="checkbox"/> VAPOR MOUNTED		
		<input type="checkbox"/> EXTERNAL <input type="checkbox"/> INTERNAL				
SEAL FACTOR A	SEAL FACTOR B	NUMBER OF COLUMNS	EFFECTIVE COLUMN DIAMETER (FT)	SECONDARY SEAL		
				<input type="checkbox"/> NONE		
CLINGAGE FACTOR	LENGTH OF SEAM (FT)	DECK	AREA OF DECK (SQ FT)	<input type="checkbox"/> RIM MOUNTED		
				<input type="checkbox"/> SHOE MOUNTED		
				<input type="checkbox"/> WEATHER MOUNTED		
SHELL CONDITION		TOTAL FITTING LOSS FACTOR (LB-MOLE/YR)		SEAM LOSS FACTOR (LB-MOLE/FT-YR)		
				<input type="checkbox"/> BOLTED DECKS (VALUE = .14)		
				<input type="checkbox"/> WELDED DECKS (VALUE = 0.0)		
				<input type="checkbox"/> EXTERNAL FLOATING ROOF TANKS (VALUE = 0.0)		

[2] CHEMICAL INFORMATION

CHEMICAL NAME	CAS NUMBER	THROUGHPUT (1,000 GAL/YR)	VAPOR PRESSURE AT STORAGE TEMP (psia)
VAPOR MOLECULAR WT	NUMBER OF TURNS	LIQUID DENSITY (LBS/GALLON)	PRODUCT FACTOR
			<input type="checkbox"/> CRUDE OIL (VALUE = 4)
			<input type="checkbox"/> ANY OTHER LIQUID (VALUE = 1.0)Ω
VAPOR PRESSURE FUNCTION	{(VAPOR PRESSURE) / 14.7} / [1 + {(VAPOR PRESSURE) / 14.7}^0.5]^2		=

[3] METEOROLOGICAL CONDITIONS

AVERAGE WIND SPEED (MPH)	SEAL RELATED WIND EXPONENT	AVERAGE AMBIENT TEMPERATURE (F)

[4] VOC EMISSION CALCULATIONS

CALCULATION	FORMULA	RESULT
RIM SEAL LOSS (LBS/YR)	{(SEAL FACTOR, A) + {SEAL FACTOR, B} X {AVG WIND SPEED}^ {SEAL RELATED WIND EXPONENT}} X {DIAMETER} X {VAPOR MOLECULAR WT} X {PRODUCT FACTOR} X {VAPOR PRESSURE FUNCTION}	
WITHDRAWAL LOSS (LBS/YR)	0.943 X ({THROUGHPUT} X 23.81) X {CLINGAGE FACTOR} X {LIQUID DENSITY} / {DIAMETER} X [1 + {(NO OF COLUMNS} X {EFFECTIVE COLUMN DIAMETER} / {DIAMETER})]	
DECK FITTING LOSS (LBS/YR)	{TOTAL DECK FITTING LOSS FACTOR} X {MOLECULAR WT} X {PRODUCT FACTOR} X {VAPOR PRESSURE FUNCTION}	
DECK SEAM LOSS (LBS/YR)	{DIAMETER}^2 X {LENGTH OF SEAM} / {AREA OF DECK} X {SEAM LOSS FACTOR} X {MOLECULAR WT} X {PRODUCT FACTOR} X {VAPOR PRESSURE FUNCTION}	
WORKING LOSS EMISSION FACTOR	{WITHDRAWAL LOSS} / {THROUGHPUT}	
BREATHING LOSS EMISSION FACTOR	{(RIM SEAL LOSS) + {DECK FITTING LOSS} + {DECK SEAM LOSS}} / {CAPACITY}	